GOSUD/GTSPP meeting

16-18 NOVEMBER 2016

JOANA BEJA

NERC ships

✓ RRS James Cook ~ 9 cruise/year

Operated by NOC

✓ RRS Discovery ~ 9 cruise/year

✓ RRS James Clark Ross ~ 10 cruises/year   Operated by BAS

✓ RRS Sir David Attenborough

Other UK ships

✓ MRV Scotia (operated by Marine Scotland)

✓ RV Plymouth Quest
(operated by Plymouth Marine
Laboratory)

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Ship underway measurements

✓ Navigation

Position, heading, ship's velocity, bathymetry

✓ Meteorology

Air temperature, air pressure, relative humidity, PAR/TIR, wind direction and speed

✓ Surface Hydrography

Temperature, Conductivity, Salinity, Fluorescence/Chlorophyll, Transmittance/Beam Attenuation

BODC's procedures

Data delivered
to BODC

We check the data
for completeness

We archive a copy
(in future proof format)

We record all ingestion
steps and decisions

We research the
context

We document
details of the dataset

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Delayed Mode- Quality control

✓ Automated:
  absent values
  transfer of originator's flags

✓ Manual:
  visual screening
  flagging of improbable values

NRT data

✓ Internal project initiated in late 2014

✓ Several platforms/data types (ships underway, moorings, seal tags, gliders, sea level, argo, drifters, CTDs)

✓ 2016 incorporated into a NOC wide project C2

✓ NRT component is one part of system

✓ Proof of concept for three NERC vessels

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NRT current constraints

- ✓ Metadata

- ✓ Ship's bandwidth

- ✓ Ingestion procedures

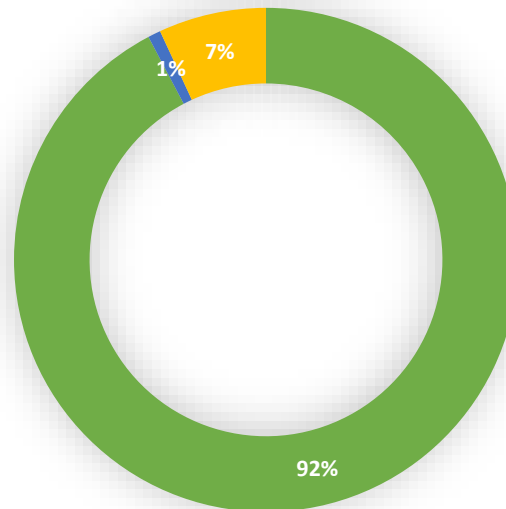- ✓ Quality control module

- ✓ Operational element

- ✓ Resource

Data policies

✓ CTD published data (Nov2016)

(https://www.bodc.ac.uk/data/online_delivery/nodb/search/)

Unrestricted   Restricted   Academic

NVS2

✓ Web service that can be accessed either via ReSTful URIs or SOAP

✓ Uses SPARQL for interrogating knowledge stores

✓ Online services to build and search for vocabularies and for concepts within vocabularies

✓ Use of controlled vocabularies allows for: consistency, discoverability, machine and human readability

(http://www.bodc.ac.uk/products/web_services/vocab/)

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SenseOcean

- ✓ Create a highly integrated multifunction and cost-effective in situ marine biogeochemical sensor system

- ✓ Key metadata and technical data from novel sensors aren't lost

- ✓ Efficient data processing, archival and delivery

- ✓ Interoperability (apply standards from sensor development through to data delivery)

- ✓ Use of ERDDAP technology

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Digital Object Identifiers

✓ Implemented in 2013

✓ Provide DOIs for datasets which can be cited in journal papers

✓ Data are public and can be downloaded without user login

(https://www.bodc.ac.uk/data/published_data_library/)

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